



**ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
NOVEMBER 6, 2002 - 2:30 P.M.
EXECUTIVE CONFERENCE ROOM**

Present:	L. E. Tibbits	T. Anderson	C. Roberts
	M. VanPortFleet	T. Davies	J. W. Reincke
	T. Fudaly	S. Bower	
Guests:	J. Schultz	S. Kahl	K. Kennedy
	R. D. Till	G. Croskey	E. Savas
	J. Morena	M. Bott	

OLD BUSINESS

1. Approval of the Minutes of the September 11, 2002, Meeting - L. E. Tibbits

Minutes of the September 11, 2002, meeting were approved.

2. *Drainage Design and Storm Water Management Manual* (See February 7, 2002, Minutes, New Business, Item 7) - G. Croskey and M. VanPortFleet

The name of the manual has been changed to *Drainage Manual*. The purpose of the manual is to provide a contract, reference, and training document for designers and operations personnel that is required to meet MDOT's Storm Water Management Program goals and the storm water permit requirements.

Gary Croskey provided an update on the progress of the manual's development by the consultant; the composition of the MDOT review teams; and the utilization of a project website for review, comment and approval. Draft chapters are being posted on the Storm Water Management Program public website. Thom Davies will ensure that the regions know this.

Development of the manual will continue according to the schedule noted at the meeting. Further updates will be presented as the project progresses.

3. *Revision of Guidelines for the Use of Permanent Raised Pavement Markers* (See July 11, 2002, Minutes, New Business, Item 5) - J. Morena and M. Bott

The guidelines were revised to reflect the concerns viewed at the July EOC meeting. A moratorium was placed on their use until revised guidelines could be written and approved by EOC. The new guidelines allow for the installation of raised pavement markers under certain circumstances for enhanced delineation. Their proposed use must be defined and

documented by the region Traffic and Safety representative after considering other options such as signing, pavement markings, and roadside delineation.

ACTION: The revised *Guidelines for the Use of Permanent Raised Pavement Markers* are approved for distribution and immediate implementation.

NEW BUSINESS

1. **Pavement Selection, I-69 Reconstruction, CS 13073, JN 50776 - K. Kennedy**

The rehabilitation alternates considered were a hot mix asphalt (HMA) pavement (Alternate 1 - Equivalent Uniform Annual Cost [EUAC] \$43,572/directional mile) and a jointed plain concrete pavement using a P1 modified concrete mix (Alternate 2 - EUAC \$39,341/directional mile).

A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

11"	Jointed Plain Concrete Pavement (Mainline) (15' Joint Spacing)
		Freeway Shoulder Option (Design According to R-110 Series)
4"	Open Graded Drainage Course
		Geotextile Separator
12"	Existing Select/Sand Subbase
6"	Open Graded Underdrains
27"	Total Thickness
Present Value Initial Construction Costs		\$532,884/directional mile
Present Value Initial User Costs		\$23,035/directional mile
Present Value Maintenance Costs		\$79,763/directional mile
EUAC		\$39,341/directional mile

2. **Research Report RC-1413, *Investigation of the Adequacy of Current Design Loads in the State of Michigan* - J. W. Reincke and R. D. Till**

The objective of the research project was to determine if the HS-25 live load currently used for the design of bridges is appropriate. The department currently uses the AASHTO Standard Specifications for Highway Bridges and has committed to change our design methodology to the AASHTO LFRD Bridge Design Specifications by 2007. The new design specifications have different live load configurations, load factors, and live load distribution factors. The report recommends that a new design load be developed for bridges in the Metro Region where actual truck loads must be adequately accounted for in the bridge design load.

ACTION: The research report is approved for final printing and distribution subject to minor editorial changes. Pursuant to the Action Plan, a research study will be initiated to determine the appropriate live loading to use when designing bridges according to the AASHTO LRFD Bridge Design Specifications.

3. **Research Report R-1418, *Evaluation of Agricultural By-Products (ABP) for Anti-Icing and Deicing Use in Michigan* - J. W. Reincke and S. Kahl**

The project studied the economic factors and safety issues of using ABP for anti-icing, developed ABP specifications, and provided recommendations for the implementation of anti-icing. It was conducted at the request of the Southwest Region as a pilot program. Results showed success with using ABPs for anti-icing. Training on methods and limitations is necessary for a successful anti-icing program. It is recommended that MDOT and local agencies responsible for winter maintenance operations on trunkline routes consider implementing an anti-icing program. The program should include training for operators and managers, and a benefit-cost methodology to formally track and document the costs and benefits of anti-icing.

ACTION: The research report and its action plan are approved, subject to changes noted at the meeting. The region engineer liaisons will work with the Construction and Technology and Maintenance Divisions to create an ad hoc committee to develop an implementation plan for an anti-icing program (including guidelines, budget, and training).

4. **2003 Ride Quality Special Provision - S. Bower**

The new specification revises several parts of the ride quality special provision including,

- Acceptance run is now termed the Run of Record and is performed prior to any surface correction by the contractor.
- The contractor still performs the Run of Record, but only with a department representative present.
- The contractor must supply a much better ride quality than in previous versions of the specification in order to receive the same incentive amount.

The new 2003 specification also replaces three separate ride specifications that covered a variety of different pavement fixes. This will reduce confusion for design engineers when determining which specification applies to a specific project type.

The department will continue to refine the specification in the coming year for 2004. In addition, MDOT is developing a certification site for use by department and contractor personnel. The site will be used to ensure that ride quality measuring equipment is operating consistently and accurately.

ACTION: The special provision is approved subject to final FHWA review and approval.

5. ***Draft Guidelines for Use of Permanent Changeable Message Signs (CMS) for Child Abduction AMBER Alert Messages - E. Savas and J. Schultz***

The draft guidelines for AMBER alerts are an exception to MDOT policy on the use of permanent CMS. The guidelines were developed jointly with the FHWA, with the full cooperation of the Michigan State Police. Other state DOTs have enacted an official communication system to assist law enforcement agencies in the recovery and hopefully safe return of kidnaped children.

ACTION: The draft guidelines will be further reviewed and will return for action at the December meeting.

(Signed Copy on File at C&T)

Jon W. Reincke, Secretary
Engineering Operations Committee

JWR:kar

cc:	EOC Members	C. Libiran	K. Peters	R. J. Risser, Jr. (MCPA)
	Region Engineers	M. Frierson	T. L. Nelson	A. C. Milo (MRBA)
	G. J. Rosine	L. Stornant	D. A. Juntunen	J. Becsey (MAPA)
	R. J. Lippert, Jr.	K. Rothwell	J. Steele (FHWA)	D. Hollingsworth (MCA)
	J. Ruszkowski	T. E. Myers	J. Murner (MRPA)	M. Newman (MAA)
	R. D. Till	T. Phillips	M. Nystrom (AUC)	